RESULTS OF ULTRASONIC DIAGNOSTICS IN TWIN PREGNANCIES

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In our study of the ultrasound results from 22o twin-pregnancies we critically examined our ability to predict gemini, their positions at birth and their birthweight. From 22o pregnancies (circa 45o ultrasound-examinations) in 46 cases twins were not recorded by the first ultrasound examination, 34 of these examinations were before the 18th week of pregnancy. First examination after the 25th week gave an improvement to over 99%. After repeated examination twins were found in every case.

From 126 of the twin pregnancies which were controlled using ultrasound until 14 days before birth, the birth position of the first twin was succesfully predicted in 122 cases.

COMPARISON OF POSITION RECORDED BY ULTRASOUND 0 - 14 DAYS BEFORE BIRTH AND BIRTH-POSITIONS. N = 126 CASES

POSITIONS IN US	N	CP	I. CP	II. CP	BP	I. BP	II. BP	TP	I. TP	II. TP
CP	8	2	3	2			1			
I. CP	57	1	43	1o			2			
II. CP	32	1	16	15						
BP	5				1	2	1		1	
I. BP	17				2	14	1			
II. BP	6					2	4			
TP	-									
I. TP	1								1	
II. TP	-									
OP	-									
I. OP	-									
II. OP	-									

POSITIONS AT BIRTH FIRST TWIN

CP = CEPHALIC PRESENTATION
BP = BREECH PRESENTATION
TP = TRANSVERSE PRESENTATION
OP = OBLIQUE PRESENTATION

Fig. 1

The birth-position of the second twin was predicted in only 92 cases. It was notible that the most frequent position-change was that of breech or transverse presentation to cephalic presentation which happened in 17 of the 34 cases.

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COMPARISON OF POSITIONS RECORDED BY ULTRASOUND 0 - 14 DAYS BEFORE BIRTH AND BIRTH-POSITIONS. N = 126 CASES.

POSITIONS IN US	N	CP	I. CP	II. CP	BP	I. BP	II. BP	TP	I. TP	II. TP
CP	4		2	1						
I. CP	18	1	13	2		1	1			1
II. CP	40	2	12	22	1	1	2			
BP	6		1	1	2		2			
I. BP	16		1	3		9	2			
II. BP	26	1	3	3	3	2	12			
TP	3		1	1				1		
I. TP	8			1		1	3	1	1	1
II. TP	4			1	1	1				1
OP	-									
I. OP	-									
II. OP	1					1				

POSITIONS AT BIRTH SECOND TWIN

CP = CEPHALIC PRESENTATION
BP = BREECH PRESENTATION
TP = TRANSVERSE PRESENTATION
OP = OBLIQUE PRESENTATION

Fig. 2

A comparison between BPD, MAD and BPD + MAD measurement taken from the scan of both twins showed, that in the critical group - BPD over 4 mm, MAD over 8 mm, and BPD + MAD over 12 mm difference measured from 0 - 28 days before birth the MAD proved to be an exacter predictor of birthweight difference than the BPD. A combination of both measurements gave the most accurate results.

COMPARISON BETWEEN BPD, MAD, BPD AND MAD MEASUREMENTS TAKEN FROM THE SCAN OF BOTH TWINS.

	DIFFERENCE	N	0 - 500 G	GREATER THAN 500 G
BPD	0 - 2 MM	126	114 = 90,5%	12 = 9,5%
MAD	0 - 4 MM	77	71 = 92,2%	6 = 7,8%
BPD + MAD	0 - 6 MM	72	68 = 94,4%	4 = 5,6%
BPD	2 - 4 MM	37	26 = 73,3%	11 = 30,0%
MAD	4 - 8 MM	31	22 = 71,0%	9 = 29,0%
BPD + MAD	6 - 12 MM	24	17 = 70,8%	7 = 29,2%
BPD GREATER THAN	4 MM	29	16 = 55,2%	13 = 44,8%
MAD GREATER THAN	8 MM	9	2 = 22,2%	7 = 77,8%
BPD + MAD GREATER THAN	12 MM	8	0 = 0,0%	8 = 100,0%

BPD = BIPARIETAL DIAMETER MAD = MEAN ABDOMINAL DIAMETER
N = NUMBER OF CASES

Fig. 3

This study underlines the importance of ultrasound in diagnosing and controlling twin pregnancies. The ability of ultrasound to predict the birth-position makes it to an invaluable aid during the birth process.

The combined abdomino-cephalometrie proves to be a better method for detecting of discordant fetal development.

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